

Amendments to the Claims:

Claims 1-33 (Canceled)

Claim 34 (Currently Amended): An in vitro method of enhancing the efficiency of delivery of a nucleic acid encoding a heterologous protein or polypeptide to a cell, said method comprising

a) contacting said cell in vitro with at least one agent capable of enhancing the cytoskeletal permissiveness of said cell for transfection in an amount effective to enhance said cytoskeletal permissiveness, wherein at least one agent is denatured collagen or a peptide of denatured collagen, and

b) contacting said cell in vitro with said nucleic acid encoding said heterologous protein or polypeptide for the transfection of said cell, whereby the efficiency of delivery of said nucleic acid to said cell is enhanced.

Claims 35-40 (Cancelled)

Claim 41 (Previously Presented): The method of claim 34, wherein said nucleic acid encoding said heterologous protein or polypeptide is cloned in a vector which is provided to said cell simultaneously with providing said at least one agent.

Claim 42 (Previously Presented): The method of claim 34, wherein said nucleic acid encoding said heterologous protein or polypeptide is cloned in a vector which is provided to said cell prior to providing said at least one agent.

Claim 43 (Previously Presented): The method of claim 34, wherein said nucleic acid encoding said heterologous protein or polypeptide is cloned in a vector which is provided to said

cell after providing said at least one agent.

Claim 44 (Previously Presented): The method of claim 34, wherein said nucleic acid encoding said heterologous protein or polypeptide is provided to said cell using a vector selected from the group consisting of a plasmid vector, a viral vector, and a linearized nucleic acid.

Claim 45 (Previously Presented): A composition for enhancing the efficiency of delivery of a nucleic acid encoding a heterologous protein or polypeptide to a cell, said composition comprising:

a) at least one agent capable of enhancing the cytoskeletal permissiveness of said cell for transfection in an amount effective to enhance said permissiveness, wherein at least one agent is denatured collagen or a peptide of denatured collagen; and

b) said nucleic acid encoding said heterologous protein or polypeptide for the transfection of said cell.

Claims 46-51 (Cancelled)

Claim 52 (Previously Presented): The composition of claim 45, wherein said nucleic acid encoding said heterologous protein or polypeptide is cloned into a vector which is selected from the group consisting of a plasmid vector, a viral vector, and a linearized nucleic acid.

Claim 53 (Cancelled)

Claim 54 (Previously Presented): The composition of claim 45, further comprising a vehicle that is suitable for pharmaceutical delivery.

Claim 55 (Previously Presented): The composition of claim 54, wherein said vehicle is a liposome forming lipid.

Claim 56 (Previously Presented): The composition of claim 45, further comprising a polymeric carrier that permits controlled release of said at least one agent, said polymeric carrier being selected from the group consisting of controlled release film, nanoparticle, and microparticle.

Claim 57 (Cancelled)

Claim 58 (Cancelled)

Claim 59 (Previously Presented): A kit for enhancing the efficiency of delivery of a nucleic acid encoding a heterologous protein or polypeptide to a cell, said kit comprising

- a) an instructional material;
- b) at least one agent capable of enhancing the cytoskeletal permissiveness of a cell for transfection in an amount effective to enhance said permissiveness, wherein at least one agent is denatured collagen or a peptide of denatured collagen; and
- c) said nucleic acid encoding said heterologous protein or polypeptide.

Claims 60-65 (Cancelled)

Claim 66 (Previously Presented): The kit of claim 59, wherein said nucleic acid encoding said heterologous protein or polypeptide is cloned into a vector selected from the group consisting of a plasmid vector, a viral vector, and a

linearized nucleic acid.

Claim 67 (Currently Amended): The method of claim ~~37~~ 34 further comprising the step:

c) comparing the expression of said heterologous protein or polypeptide in said cell with the expression of said heterologous protein or polypeptide in a second cell wherein said at least one agent is not provided with said nucleic acid molecule to said second cell, wherein an increase in the expression of said heterologous protein or polypeptide indicates the efficiency of delivering said nucleic acid molecule is enhanced.

Claim 68 (Previously Presented): The method of claim 34, wherein said denatured collagen or a peptide of denatured collagen is denatured at 100°C at pH 3.

Claim 69 (Previously Presented): The composition of claim 45, wherein said denatured collagen or a peptide of denatured collagen is denatured at 100°C at pH 3.

Claim 70 (Previously Presented): The kit of claim 59, wherein said denatured collagen or a peptide of denatured collagen is denatured at 100°C at pH 3.

Claim 71 (New): The method of claim 68, wherein said denaturation is performed for one hour.

Claim 72 (New): The composition of claim 69, wherein said denaturation is performed for one hour.

Claim 73 (New): The kit of claim 70, wherein said denaturation is performed for one hour.